



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,005	01/28/2002	Shuichi Karino	8013-1002	2094
466	7590	06/09/2006	EXAMINER DYKE, KERRI M	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			ART UNIT 2616	PAPER NUMBER

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,005

Applicant(s)

KARINO ET AL.

Examiner

Kerri M. Dyke

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-15,17-22,25-27,30-32 and 35-92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22,25-27,30-32 and 35-92 is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-15 and 17-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The finality of the previous Office Action is withdrawn.

Response to Arguments

2. Applicant's arguments, see page 28, filed 05/18/2006, with respect to the rejection(s) of claim(s) 1, 3-8, 10-15, and 17-21 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art, Cheriton (US 6,724,721).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-6, 8, 10-13, 15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant admitted prior art (AAPA) in view of Cheriton (US 6,724,721).
5. In regards to claim 1, applicant admits a communication network comprising:
 - a. A host network (fig 1 element 1);
 - b. A plurality of base stations (fig. 1 BS₁ – BS₈);
 - c. At least a mobile host capable of establishing links to said base stations (fig. 1 MH); and
 - d. A hierarchy-network of plural routers providing multiple-point routings between said base stations and said host network, and said routers including at least a page-area

Art Unit: 2616

managing router for managing at least a page area for recording said mobile host (fig. 1

$R_1 - R_7$).

AAPA does not disclose wherein said page-area managing router transfers packets to subordinate routes managed by said page-area managing router only when a quantity of the packets does not exceed a predetermined number in a predetermined time period, and wherein said page-area managing router does not transfer packets that are received in the predetermined time period in excess of the predetermined number, and wherein said page-area managing router discards the packets that are received in the predetermined time period in excess of the predetermined number.

Cheriton discloses limiting the number of packets sent in each time period in column 9 line 38 – column 10 line 42. Column 9 lines 38-58 disclose a credit system for limiting the number of packets. Each received packet is compared to the value of the remaining credits. If sufficient credits remain the packet is transmitted. If insufficient credit remains the packet is not transmitted and the packet is discarded. Column 10 lines 1-3 disclose that the credits are refreshed at the end of the predetermined time period.

It would have been obvious to one of ordinary skill in the art to include the packet limiting credit system taught by Cheriton in the communication network admitted by the applicant because the credit system fairly allocated bandwidth among flows even if some of the flows are behaving “badly” or “aggressively” as disclosed by Cheriton in column 4 lines 22-61.

6. In regards to claim 3, AAPA and Cheriton disclose the communication network as claimed in claim 1, wherein said page-area managing router is capable of optionally setting said

Art Unit: 2616

predetermined number. Cheriton discloses that the rate limit (predetermined number) may be variably set in column 10 lines 13-26.

7. In regards to claim 4, AAPA and Cheriton disclose the communication network as claim in claim 3, wherein said predetermined number is a natural number. Cheriton discloses two different limit examples in column 10 line 14 and both are natural numbers.

8. In regards to claim 5, AAPA and Cheriton disclose the communication network as claimed in claim 1, wherein said page-area managing router is capable of optionally setting said predetermined time period. Cheriton discloses a method for determining the time period in column 10 lines 13-26.

9. In regards to claim 6, AAPA and Cheriton disclose the communication network as claimed in claim 1, wherein said page-area managing router transmits, through said host network to a caller, a packet-transmission suppression request which requests said caller to widen a time interval between transmission of said packets. Cheriton discloses sending a backchannel message requesting the source slow its transmission in column 13 lines 1-5.

10. Claims 8-13 are rejected upon the same grounds as claims 1-6.

11. Claims 15-20 are rejected upon the same grounds as claims 1-6.

12. Claims 7, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Cheriton as applied to claims 1-6, 8-13, and 15-20 above, and further in view of Nouredine.

13. In regards to claim 7, AAPA and Cheriton disclose the communication network as claimed in claim 1, but not wherein said page-area managing router transmits, through said host network to a caller, a packet transmission suppression request which requests said caller to stop

Art Unit: 2616

transmission of said packets until said predetermined time period has passed, and re-start said packet transmission thereafter.

Noureddine discloses a backpressure method in section 2 and backpressure messages are taught in section 2.3 on page 1257. When a buffer is full a message is sent stopping transmission. When packets can again be received a new message is sent restarting transmission.

It would have been obvious to one of ordinary skill in the art to include backpressure messages, as taught by Noureddine, in the communication network of AAPA and Cheriton because backpressure helps increase network efficiency and fairness, as taught in section 3.1.3 on pages 1259-1260.

14. Claims 14 and 21 are rejected upon the same grounds as claim 7.

Allowable Subject Matter

15. Claims 22, 25-27, 30-32, and 35-92 are allowed.

Conclusion

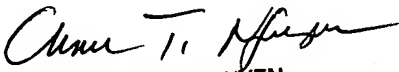
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Dyke whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Thursday, 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kmd


CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600